

AMENDMENTS TO THE CLAIMS

Claims 1 and 16 have been amended. A listing of the claims follows and replaces all prior listing of the claims.

LISTING OF THE CLAIMS

Claim 1 (Currently Amended): A fuel supplying apparatus ~~[[for]]~~ in a fuel tank of a fuel cell, comprising:

a fuel; and

a cross-linked membrane for encapsulating the fuel and isolating the fuel from a fuel solvent in the fuel ~~tank~~ cell,

wherein the cross-linked membrane is ~~only~~ permeable ~~only~~ to the fuel and is a single-layered cross-linked membrane allowing the fuel to permeate in one direction; ~~and~~

wherein the cross-linked membrane serves as a one-way gate to the fuel encapsulated therein, such that the fuel is released at a rate controlled by diffusion.

Claim 2 (Original): The fuel supplying apparatus of claim 1, wherein the fuel is methanol.

Claim 3 (Previously presented): The fuel supplying apparatus of claim 1, wherein the fuel and the cross-linked membrane are formed to have a gel-like structure.

Claims 4-8 (Cancelled).

Claim 9 (Previously presented): The fuel supplying apparatus of claim 1, wherein the single-layered cross-linked membrane is selected from the group consisting of polyvinyl acetate, oligomers and copolymers of vinyl pyrrolidone, and polytetrafluoroethylene.

Claim 10 (Previously presented): The fuel supplying apparatus of claim 1, further comprising a second cross-linked membrane formed on an outer layer of the single-layered cross-linked

membrane to be permeable only to the fuel under certain circumstances so as to form a multi-layered complex membrane.

Claim 11 (Previously presented): The fuel supplying apparatus of claim 10, further comprising a porous substrate provided between the single-layered cross-linked membrane and the second cross-linked membrane.

Claim 12 (Previously presented): The fuel supplying apparatus of claim 10, wherein the second cross-linked membrane is made of polyvinyl alcohol.

Claim 13 (Previously presented): The fuel supplying apparatus of claim 10, wherein the fuel comprises methanol, and wherein the second cross-linked membrane is moistened so as to be permeable to the methanol.

Claims 14 and 15 (Cancelled).

Claim 16 (Currently amended): A fuel supplying apparatus ~~[[for]]~~ in a fuel tank of a fuel cell, comprising:

a fuel; and
a cross-linked membrane for encapsulating the fuel and isolating the fuel from a fuel solvent in the fuel ~~tank~~ cell,
wherein the cross-linked membrane is permeable only to the fuel,
wherein the fuel and the cross-linked membrane are formed to have a gel-like structure;
and
wherein the cross-linked membrane is a single-layered cross-linked membrane allowing the fuel to permeate in one direction; and
wherein the cross-linked membrane serves as a one-way gate to the fuel encapsulated therein, such that the fuel is released at a rate controlled by diffusion.

Claim 17 (Previously presented): The fuel supplying apparatus of claim 16, wherein the fuel is methanol.

Claim 18 (Cancelled).

Claim 19 (Previously presented): The fuel supplying apparatus of claim 16, wherein the single-layered cross-linked membrane is selected from the group consisting of polyvinyl acetate, oligomers and copolymers of vinyl pyrrolidone, and polytetrafluoroethylene.

Claim 20 (Previously presented): The fuel supplying apparatus of claim 16, further comprising a second cross-linked membrane formed on an outer layer of the single-layered cross-linked membrane to be permeable only to the fuel under certain circumstances so as to form a multi-layered complex membrane.

Claim 21 (Previously presented): The fuel supplying apparatus of claim 20, further comprising a porous substrate provided between the single-layered cross-linked membrane and the second cross-linked membrane.

Claim 22 (Previously presented): The fuel supplying apparatus of claim 20, wherein the second cross-linked membrane is made of polyvinyl alcohol.

Claim 23 (Previously presented): The fuel supplying apparatus of claim 20, wherein the fuel comprises methanol, and wherein the second cross-linked membrane is moistened so as to be permeable to the methanol.